

(54) Title of the invention : GREEN TEA EXTRACT CHIP FOR LOCAL DRUG DELIVERY SYSTEM AS AN ADJUNCT TO SCALING AND ROOT PLANING IN C

<p>(51) International classification :A61J7/00 (31) Priority Document No :NA (32) Priority Date :NA (33) Name of priority country :NA (86) International Application No :NA Filing Date :NA (87) International Publication No : NA (61) Patent of Addition to Application Number :NA Filing Date :NA (62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)DR. RENUKA METGUD Address of Applicant :DEPARTMENT OF PERIODONTICS, KLE V.K.INSTITUTE OF DENTAL SCIENCES, KLE ACADEMY OF HIGHER EDUCATION AND RESEARCH, NEHRU NAGAR, BELAGAVI-590010, KARNATAKA STATE, INDIA. Karnataka India 2)DR. RUCHI BHATIA 3)DR. SHWETA SHIVAYOGI HUGAR 4)U.R.BOLMAL</p> <p>(72)Name of Inventor : 1)DR. RENUKA METGUD 2)DR. RUCHI BHATIA 3)DR. SHWETA SHIVAYOGI HUGAR 4)U.R.BOLMAL</p>
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(57) Abstract :

Abstract: The present invention relates to the development of effective composition for local drug delivery system as an adjunct to scaling and root planing for treatment of chronic periodontitis.. It specifically relates to the development of effective composition with green tea extracts in the form of chips for local drug delivery system as an adjunct to scaling and root planing for treatment of chronic periodontitis. The invention also pertains to the development of process for preparation of effective composition with green tea extracts in the form of chips for local drug delivery system as an adjunct to scaling and root planing for treatment of chronic periodontitis. Periodontitis is an infection of the periodontium. Complex nature of the microbial biofilm in the subgingival environment requires thorough mechanical removal of plaque to improve periodontal health. Adjunctive chemotherapeutic agents along with non-surgical therapy enhance outcomes at sites not responsive to conventional treatment and achieve control of the disease. Green tea, apart from various health benefits has anti-inflammatory activity and is active against several perio-pathogens. The study is to assess the efficacy of locally delivered green tea extract as an adjunct to scaling and root planing in chronic periodontitis. 30 patients, both male and female with age range of 30- 55 years with probing depth 4-6 mm were selected. A split mouth design was followed. Treatment consisted of scaling and root planing and placement of green tea extract chips at the test site while no chip was placed at control site. Clinical parameters such as gingival index (GI), plaque index (PI), probing pocket depth and evaluation of the total microbial load (colony forming units / ml) were done at baseline and 21 days. Both the test and control groups showed statistically significant reduction in GI and PI, probing pocket depth after treatment ($p < 0.05$). There was greater reduction in all the parameters in the test group (SRP+ green tea extract chips) as compared to the control group (SRP alone). Intercomparison between microbial results showed significant reduction of microbial load in the test group. The green tea showed significant reduction in the clinical as well as microbial parameters in the test group as compared to the control group. Hence it can be concluded that green tea chips can be effectively used as local drug delivery as an adjunct to scaling and root planing

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